

A photograph of laboratory glassware, including Erlenmeyer flasks and a beaker, some containing liquids, with a blue-tinted background.

# **Market Update Chemicals and Materials**

**Q3 2017**

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#### Notes:

*This section reflects the views of Richard O'Reilly, CFA, who writes for Revere Associates. Mr. O'Reilly is not employed or compensated by Lincoln International, and the views set forth in this section are those of Mr. O'Reilly and should not be assumed to reflect the views of Lincoln International.*

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## Chemical Industry Momentum Disrupted by Q3 Hurricanes

### Guest Columnist

Based on economic and industry reports through mid-October, we believe the business environment for the U.S. chemical industry remained healthy during the recently completed third quarter. Domestic economic activity continued to grow in the quarter with the consensus forecast of about 2.0% real GDP annual growth, somewhat lower the second quarter's 3.1% rate.

The expansion of the domestic manufacturing sector continued during the third quarter. U.S. construction and automobile markets remained healthy, with housing starts being 3% higher for the first nine months of 2017 although monthly vehicles sales this year until September were modestly lower versus year earlier levels and for the full year likely will be below 2016's record pace.

The biggest impacts on the industry were the disruptions and damages to facilities and supply chains caused by natural disasters, primarily Hurricane Harvey which in late August landed on the Texas Gulf Coast, the center of the U.S. petrochemical industry. Numerous chemicals plants, including olefins, plastics, chlor-alkali, and derivatives, were closed ahead of Harvey and later Irma in Florida, and timing of their restarts were dependent not only on the extent of any flooding damage to those plants, but also to local infrastructure such as roads, railways, ports, and utilities. These storms resulted in not only lost production and sales but also substantial cleanup, repair, and extra logistics costs in the third quarter. Almost all affected facilities had resumed operations by the end of the quarter. The plants shutdowns boosted selling prices and margins for chemicals and derivatives but also curtailed supplies and inflated costs to the buyers of these products.

The American Chemistry Council (ACC) reported its Chemicals Activity Barometer (CAB), a leading macroeconomic indicator based on chemical industry data, on a three-month moving average basis, was virtually unchanged in September despite the effects of Hurricanes Harvey and Irma. Compared to a year earlier, the CAB is up 2.8%, a marked pullback from recent year-over-year gains. The latest reading signaled further gains in U.S. business activity into 2018 but with a slowing of the pace next year.

The global manufacturing sector, the largest customer base for the chemical industry, continued to expand during the just completed third quarter of 2017, according to the monthly worldwide PMI business surveys, at the fastest monthly rates in six years.

The U.S. manufacturing sector also appears to have continued to strengthen during the third quarter. According to the Institute for Supply Management's monthly reports for manufacturing activity, U.S. manufacturing activity in September expanded for the thirteenth consecutive month and the pace of growth was at the fastest since 2004, despite disruptions caused by the two hurricanes.

The ISM manufacturing monthly reports indicated that the U.S. chemical products industry also expanded in each month of the third quarter, despite the impact of the hurricanes. The industry's last monthly contraction was reported a year ago September.

The Federal Reserve Board reported that industrial production fell at a 1.5% annual rate during the third quarter, but output would have risen if not because of the effects of the hurricanes. Output for the chemicals industry was estimated to have fallen 2.6%, with greater declines for the basic chemicals and plastics sub-groups as output was held down in the aftermath of Harvey.

Several "hard data" points indicate that the pace of chemicals shipments slowed during the third quarter of 2017. According to the Association of American Railroads, the number of U.S. chemicals railroad carloads in the third quarter rose 0.5% from the year earlier period, including a 1.0% drop in August, a slower pace of growth than earlier in the year. Through the first nine months of 2017, total railcars were virtually unchanged versus the same period in 2016. Railroads carry about 30% of industry shipments.

Chlor-alkali industry production of chlorine and caustic soda, widely used chemicals, fell off in late August and September as a result of plant outages caused directly or indirectly by Hurricane Harvey. The industry operated at 85% of capacity in September, down from 95% in July. The industry's rates should rebound in the fourth quarter as the plants have resumed operations and with a backlog of demand to satisfy. Plastic resins industry



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production also declined in August by 6% from the same month in 2016, and was off 8.6% from July. Year-to-date production through August was virtually unchanged as compared to the same period in 2016.

Selling prices for key basic chemicals, intermediates, and plastics increased during the third quarter mostly due to the significant supply outages resulting from Harvey. These higher prices for chemicals products became a greater cost headwind to buyers such as specialty producers as their ability to implement selling price typically lag a rise in input costs.

The monthly average of a global index published by S&P Global Platts of seven widely used petrochemicals, in August climbed 9.3% and was up 8.0% from the year earlier due to supply outages the U.S. as well as in Asia.

The domestic monthly contract prices for ethylene, the largest volume petrochemical monomer, rose 20% over August and September on supply disruptions after as much as 60% of domestic capacity was closed at the peak because of Harvey. Despite that climb, the price on average for the third quarter was unchanged from the second quarter and was down 3% from the year earlier period. While ethylene margins widened in September, they narrowed on average in the third quarter on higher production costs.

Domestic prices for most of the major derivative plastics also rose during the third quarter. Polyethylene makers were able to raise prices in both August and September and have a hike pending for October. Polyethylene makers include DowDuPont, LyondellBasell, and Westlake Chemical. Polyvinyl chloride makers have a strong case for their price increases for October driven by higher monomer costs; they were last successful in February and March ahead of the spring seasonal pickup of construction activity. Vinyl producers include Westlake Chemical, now the second largest U.S. vinyl resins producer following its purchase of Axiall Corp. in August 2016.

Contract prices for propylene, the second largest volume monomer, also spiked in September by nearly 20% as nearly 40% of capacity at the peak was closed due to Harvey. Prices had increased by two-thirds during the first quarter on tightened supplies before pulling back some in the second quarter. Prices for the third quarter averaged modestly higher versus the second quarter but were up by about 10% against the year earlier quarter. We expect prices to average higher during the current fourth quarter despite resumed industry output. These higher propylene prices combined with earlier supply issues for some products have resulted in increased prices for derivatives such as resins and solvents to buyers, including paint makers (Sherwin-Williams, PPG Industries, and Axalta).

Inorganic prices have increased in 2017. Caustic soda contract prices have risen since early 2016 on stronger overall demand. Prices continued to rise during the recent third quarter including gains following numerous plant outages caused by Harvey, and sizable increases are expected in October in response to pent-up demand.

Chlorine prices rose modestly in each of the seasonally strong second and third quarters as producers achieved portions of proposed price increases. We believe strong demand and tightened supply balances will likely allow producers to achieve similar price gains in the fourth quarter. Olin Corp. and Westlake Chemical are major chlor-alkali makers.

Titanium dioxide pigment prices and margins, while still down from their peaks in 2012, have greatly increased globally since bottoming in the first quarter of 2016 as producers have been able to implement various regional price increases due to stronger industry supply/demand fundamentals, including due to some capacity closures. We expect further price gains for the rest of 2017 and into 2018. The leading producers are Chemours, Venator Materials (the former pigment business of Huntsman Corp.), and Tronox. These higher selling prices are negatively impacting important users such as paint and plastics makers.



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# The Journal of Business Chemistry – The academic journal for management issues in the chemical industry

## Focus: Good Management Practices in the Chemical Industry

The chemical industry is one of the major global industries with specific management challenges. It is an industry in transition. Compared with its economic importance and its role in providing solutions for grand societal challenges, this industry as well as companies from pharmaceutical and biotech sectors receive comparatively little attention from management literature. With the Journal of Business Chemistry, we intend to create an international platform for discussions between scholars and practitioners on good management practice in these sectors. We thereby promote an interdisciplinary and transboundary approach and encourage authors and readers to look at developments at the intersection of natural sciences and management.

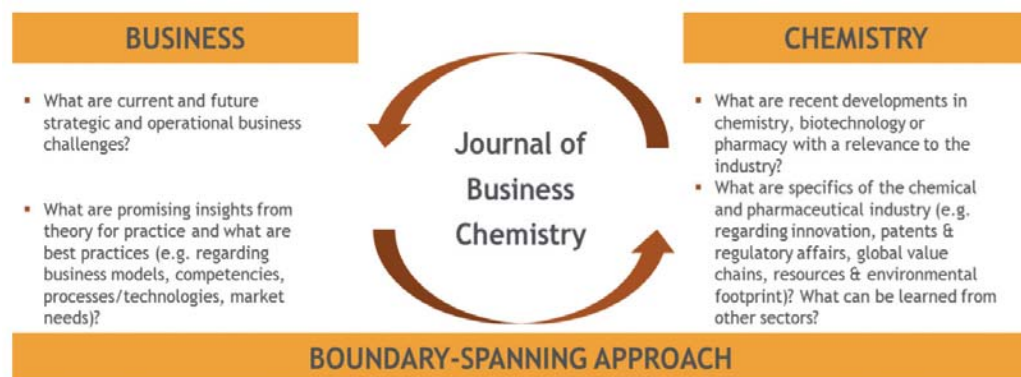
All articles focus on the chemical industry, including the biotechnology, pharmaceutical or process sectors in general. They are typically rooted in one field (e.g. chemistry) and explore implications for others (e.g. management) or can stem from interdisciplinary research.

The Journal of Business Chemistry publishes peer-reviewed research papers, essays from practitioners' perspective and commentaries.

Research papers are based on empirical or conceptual research and advance the understanding of an important issue in the chemical, or related industry. Articles in the practitioner's section describe current developments in the chemical industry and share the lessons learned from practice. Commentaries are short statements regarding current research/ business problems or previous articles of the Journal of Business Chemistry. They mainly reflect the author's personal opinion and should encourage scientific discussion. It is our intention to catalyze the reasoning behind good management practices in the industry in this phase of industry transition and to foster the dialogue between academia and practice.

Starting with this issue the Journal of Business Chemistry will complement the Chemicals and Materials Market Update by providing the managerial perspective on various topics. Readers will find excerpts from relevant articles, which will be linked to their full articles at the journal's website. The Journal of Business Chemistry is an open-access journal. Thus, all article can be accessed free of charge at [www.businesschemistry.org](http://www.businesschemistry.org)

**Figure 1: Journal of Business Chemistry Lifecycle**



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## The Journal of Business Chemistry – Reading Recommendations

### Focus: Good Management Practices in the Chemical Industry

*Jens Leker and Hannes Utikal*

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### Marketing of chemical parks: Challenges and perspectives

*Andreas Konert and Harald Kaiser*

Managing industrial parks is a multi-billion euro business with special importance to the asset intensive chemical and pharmaceutical industry. Site managers face many challenges, one of them being attracting new investments to the site. This article describes how site managers may create and implement an effective and efficient site marketing strategy by defining the relevant target group, specifying the adequate value proposition and using the most promising communication channels. The authors illustrate their recommendations with their site marketing experience from one of the most successful industrial parks in Europe, the Industriepark Höchst. [Click here to view the full article.](#)

### Chemical Industry Activity as a leading indicator of the business cycle

*Thomas K. Swift*

Activity in the chemical industry has been found to lead that in the overall economy. The author constructs a Chemical Activity Barometer (CAB) that is a leading indicator which can be used to anticipate the peaks and troughs in the US economy's business cycle. This article discusses the construction of the CAB and its performance. The results were robust and since 1919, the CAB was found to lead National Bureau of Economic Research (NBER) business cycle peaks by an average of eight months and troughs by an average of four months. In this time of such uncertainty, the CAB could be an important tool for economists, business analysts and anyone else trying to follow the US economy. [Click here to view the full article.](#)

### Optimization of economic conditions in the chemical, pharmaceutical and medical technology industry through a stringently interlocking procurement in the holistic business approach

*Ivan Barjasic*

The paper discusses the findings of a survey which was conducted in 2012 by ConMoto Consulting Group among top managers in German speaking countries. The aim of the survey was to analyze the value orientation of companies from a variety of industrial sectors, i.e. to evaluate the companies' procurement. This paper briefly presents the overall findings, but the main focus is on the results of the chemical, pharmaceutical and medical technology sector. Finally, the success factors which lead to value-oriented procurement are outlined.

[Click here to view the full article.](#)

## Chemicals and Materials Index

					LTM		YoY		Enterprise Value/LTM	
Company Name	Share Price	% of 52 Week High	Market Cap	Enterprise Value	Revenue	EBITDA	Revenue Growth	EBITDA Margin	Revenue	EBITDA
Commodity Chemicals										
Air Liquide	\$121.25	97.9%	\$51,62	\$70,510	\$23,286	\$5,544	33.4%	23.8%	2.92x	12.3x
Air Products and Chemicals	151.22	99.3%	32,960	33,626	9,951	3,183	4.5%	32.0%	3.38x	10.3x
Braskem	13.44	94.0%	10,751	19,520	14,660	3,582	(0.3%)	24.4%	1.27x	5.2x
Cabot Corporation	55.80	91.0%	3,472	4,328	2,613	488	8.4%	18.7%	1.66x	8.7x
Formosa Plastics Corporation	3.03	93.6%	19,256	17,640	6,340	884	13.1%	13.9%	2.78x	9.9x
Fuchs Petrolub	58.85	96.3%	7,655	7,570	2,713	469	7.6%	17.3%	2.69x	14.9x
K+S	27.34	92.8%	5,232	8,147	3,990	523	1.2%	13.1%	1.97x	15.0x
Linde	208.28	98.2%	38,665	48,213	19,780	4,227	6.9%	21.4%	2.35x	11.0x
LyondellBasell Industries	99.05	98.4%	39,204	46,273	31,945	6,141	12.1%	19.2%	1.45x	7.2x
Mexichem	2.65	89.7%	5,553	8,988	5,530	964	4.7%	17.4%	1.63x	9.4x
North Huajin Chemical Industries	1.65	72.8%	2,635	4,238	4,667	709	6.8%	15.2%	0.89x	5.9x
Olin Corporation	34.25	98.3%	5,694	9,130	5,932	843	9.2%	14.2%	1.54x	10.8x
Quaker Chemical Corporation	147.95	95.8%	1,969	1,956	778	107	5.3%	13.7%	2.52x	17.8x
SK Chemicals	57.10	80.4%	1,092	3,947	6,521	278	17.7%	4.3%	0.60x	10.6x
Trinseo	67.10	92.4%	2,937	3,735	4,103	477	11.0%	11.6%	0.91x	6.3x
Ultra-Petroleum	8.67	63.8%	1,702	3,713	764	552	21.4%	72.3%	4.86x	6.7x
Westlake Chemical Corporation	83.09	98.2%	10,723	14,186	6,936	1,328	60.3%	19.2%	2.05x	10.6x
Specialty Chemicals										
A. Schulman	\$34.15	90.6%	\$1,003	\$2,014	\$2,419	\$207	(3.1%)	8.6%	0.83x	9.7x
Akzo Nobel	92.33	94.0%	23,080	25,905	17,168	2,422	6.8%	14.1%	1.51x	10.0x
Albemarle Corporation	136.31	99.1%	15,059	15,919	2,810	745	4.0%	26.5%	5.67x	19.6x
Ashland Global Holdings	65.39	51.0%	4,080	6,401	5,063	719	2.3%	14.2%	1.26x	8.8x
Celanese Corporation	104.27	99.5%	14,341	17,567	5,858	1,164	8.2%	19.9%	3.13x	13.2x
Chugoku Marine Paints	8.36	95.8%	547	443	724	63	(24.8%)	8.7%	0.61x	7.1x
Clariant	23.94	96.7%	7,759	9,587	6,346	837	4.3%	13.2%	1.53x	10.3x
Ecolab	128.61	95.3%	37,217	44,706	13,363	2,890	1.1%	21.6%	3.35x	15.5x
Elementis	3.63	84.5%	1,684	2,008	740	134	13.0%	18.1%	2.63x	14.5x
Evonik Industries	35.63	93.6%	16,605	20,237	15,590	2,349	9.0%	15.1%	1.25x	8.4x
Ferro Corporation	22.30	100.0%	1,866	2,456	1,239	175	9.8%	14.1%	1.98x	14.1x
Ferrovia	22.01	89.5%	16,226	22,842	13,828	1,106	21.0%	8.0%	1.59x	16.6x
H.B. Fuller Company	58.06	99.4%	2,922	3,617	2,203	262	6.5%	11.9%	1.64x	13.4x
Hexcel Corporation	57.42	98.6%	5,155	5,931	1,945	445	(2.0%)	22.9%	3.04x	13.3x
Hitachi Chemical Company	27.40	89.6%	5,705	5,379	5,173	764	(0.8%)	14.8%	1.04x	6.8x
Kansai Paint	25.15	99.6%	6,472	7,309	3,019	422	(4.3%)	14.0%	2.43x	16.0x
Kraton Corporation	40.44	99.2%	1,262	2,974	1,853	339	17.5%	18.3%	1.61x	8.8x
Morgan Advanced Materials	4.17	91.9%	1,188	1,472	1,341	188	8.0%	14.0%	1.06x	7.6x
NewMarket Corporation	425.75	88.0%	5,046	5,396	2,108	403	4.0%	19.1%	2.56x	13.4x
Nippon Paint Holdings	33.97	84.6%	10,894	11,308	5,146	1,043	(1.1%)	20.3%	2.12x	10.3x
Novozymes	51.32	98.3%	15,341	15,635	2,207	771	5.3%	35.0%	6.84x	19.7x
PolyOne Corporation	40.03	97.9%	3,274	4,484	3,454	419	10.8%	12.1%	1.30x	10.7x
PPG Industries	108.66	95.6%	27,869	30,970	14,966	2,540	3.9%	17.0%	2.09x	12.1x
RPM International	51.34	90.9%	6,856	8,629	5,052	651	4.7%	12.9%	1.74x	13.5x
Sanyo Chemical Industries	58.17	99.8%	1,282	1,305	1,351	184	(9.7%)	13.7%	0.97x	6.7x
Shenzhen Capchem Technology	3.93	80.0%	1,486	1,446	262	58	24.6%	22.3%	5.68x	27.3x
The Sherwin-Williams Company	358.04	98.4%	33,445	44,739	13,787	2,063	18.1%	15.0%	3.56x	21.2x
Toray Industries	9.69	98.4%	15,472	21,551	18,306	2,151	(8.8%)	11.8%	1.18x	9.7x
W. R. Grace & Co.	72.15	96.7%	4,923	6,367	1,673	371	5.7%	22.2%	3.81x	15.7x
Wacker Chemie	143.36	98.1%	7,122	7,982	6,285	1,190	13.9%	18.9%	1.23x	6.5x
Diversified Chemicals										
3M Company	\$209.90	97.8%	\$125,261	\$133,825	\$30,996	\$8,630	3.1%	27.8%	4.38x	15.7x
Arkema	122.62	99.3%	9,265	11,057	9,173	1,500	9.6%	16.4%	1.16x	7.1x
BASF	106.01	95.3%	97,367	116,723	70,713	12,720	11.2%	18.0%	1.59x	8.6x
DowDuPont	69.23	97.9%	161,71	178,268	52,567	9,270	12.8%	17.6%	3.39x	18.1x
Eastman Chemical Company	90.49	99.5%	13,110	19,846	9,197	2,150	1.7%	23.4%	2.16x	9.2x
FMC Corporation	89.31	95.6%	11,979	13,665	3,314	708	13.1%	21.4%	4.12x	19.3x
Huntsman Corporation	27.42	95.6%	6,952	10,771	9,843	1,177	2.6%	12.0%	1.09x	9.1x
Kemira	13.14	88.6%	2,002	2,911	2,763	314	3.8%	11.4%	1.02x	9.0x
LANXESS	78.90	94.5%	7,221	11,623	9,993	1,270	17.1%	12.7%	1.12x	8.8x
Mitsubishi Chemical Holdings	9.52	98.9%	13,702	31,587	30,974	4,255	(11.0%)	13.7%	1.02x	7.2x
Monsanto Company	119.82	99.5%	52,640	60,951	14,640	4,167	8.4%	28.5%	4.20x	14.6x
Pidilite Industries	12.4	91.4%	6,223	6,022	863	185	3.2%	21.4%	7.05x	32.8x

## Chemicals and Materials Index

Solvay	149.39	98.1%	15,421	20,500	13,809	2,605	18.1%	18.9%	149.39	7.4x
Sumitomo Chemical	6.24	98.3%	10,202	19,460	17,859	2,273	(6.1%)	12.7%	6.24	7.5x

## Ingredients Chemicals

Balchem Corporation	\$81.29	90.8%	\$2,598	\$2,830	\$564	\$136	3.5%	24.0%	5.02x	20.9x
Cambrex Corporation	55.00	87.4%	1,800	1,706	515	167	9.8%	32.4%	3.31x	10.2x
Chr. Hansen Holding	85.77	94.9%	11,267	12,010	1,163	387	10.0%	33.2%	9.82x	29.5x
Frutarom Industries	76.95	90.5%	4,577	5,089	1,235	237	14.0%	19.2%	4.17x	21.7x
Givaudan	2,174.4	98.9%	20,039	21,514	5,023	1,038	5.8%	20.7%	4.33x	21.0x
International Flavors & Fragrances	42.91	98.0%	11,286	12,695	3,211	671	4.6%	20.9%	3.95x	18.9x
Sensient Technologies Corporation	76.92	90.5%	3,374	3,956	1,364	262	(2.0%)	19.2%	2.91x	16.0x
Symrise	75.96	96.8%	9,861	11,617	3,372	702	6.5%	20.8%	3.33x	16.0x

## Chemicals Distribution

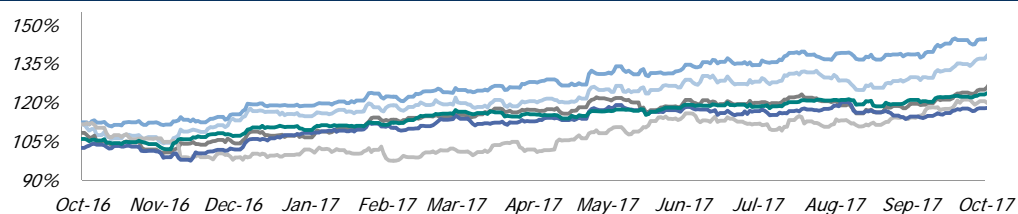
Aceto Corporation	\$11.23	50.0%	\$338	\$635	\$638	\$68	15.4%	10.7%	0.99x	9.0x
Brenntag	55.68	83.7%	8,603	10,627	12,811	919	10.3%	7.2%	0.80x	11.1x
IMCD	61.32	97.9%	3,215	3,687	2,017	182	5.2%	9.0%	1.76x	19.5x
Monsanto Company	119.82	99.5%	52,640	60,951	14,640	4,167	8.4%	28.5%	4.20x	14.6x
Nagase & Co.	16.74	98.5%	2,111	2,561	6,553	249	(7.4%)	3.8%	0.39x	10.1x
Nexeo Solutions	7.30	73.4%	652	1,524	3,507	151	nmf	4.3%	0.43x	10.1x
Sinochem International Corporation	1.54	79.0%	3,212	6,331	6,773	376	12.9%	5.6%	0.92x	16.5x
Univar	28.93	87.3%	4,068	6,766	8,058	474	(2.1%)	5.9%	0.84x	14.3x

<b>Mean</b>	<b>92.4%</b>						<b>10.6%</b>	<b>17.8%</b>	<b>2.4%</b>	<b>12.8x</b>
<b>Median</b>	<b>95.6%</b>						<b>7.6%</b>	<b>17.3%</b>	<b>1.8%</b>	<b>10.8x</b>

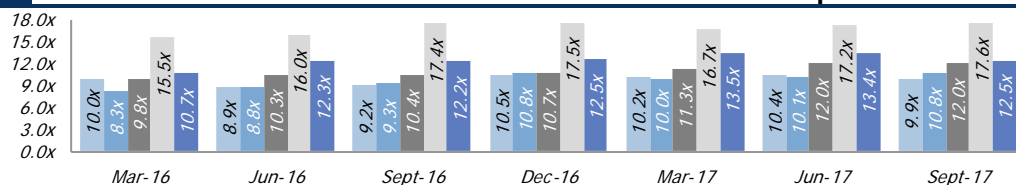
Source: Bloomberg, CapitalIQ and company filings, as of 09/30/2017

Note: \$ in millions, except share price

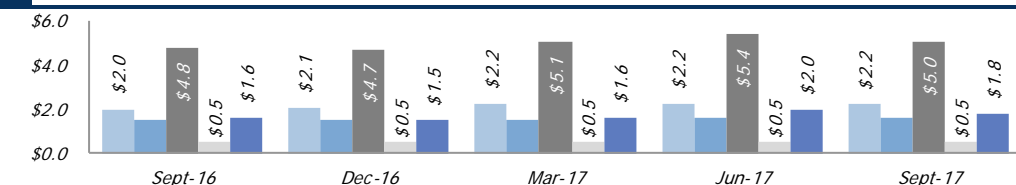
## Chemicals and Materials Index – LTM Relative Stock Price Performance



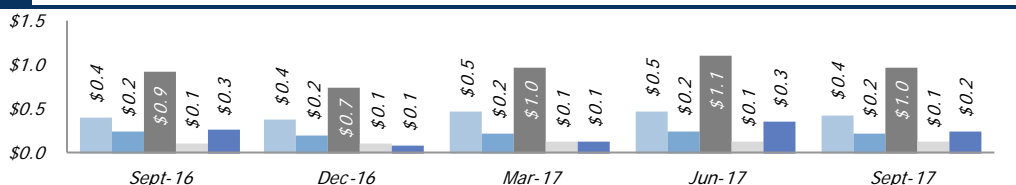
## Chemicals and Materials Index – LTM TEV / EBITDA Multiples



## Chemicals and Materials Index – LTM Revenue



## Chemicals and Materials Index – LTM EBITDA



## Sale of Arbonia's Coatings Division

### Description

International coatings group with three business units, including Wood (Feyco Treffert), Packaging (Schekolin Sag) and Non-stick (ILAG). The Coatings Division served primarily industrial players with a leading market share in its chosen niches. The Company had approximately 500 full-time employees with headquarters in Switzerland and Germany and production facilities in Europe, Asia and the U.S. In 2015, the combined units achieved net sales of CHF 140 million and EBITDA of approximately CHF 7 million.



### Situation

Following a strategic review, Swiss listed industrial group Looser Holding decided to streamline the group's portfolio of activities and mandated Lincoln International in April 2016 to lead the divestiture of its Coatings Division.

In a value-maximizing sale strategy, the seller was open to sell the Coatings division with its three business units either as a whole or separately to avoid any "conglomerate discount". During the disposal process, Looser Holding was subject to an agreed public takeover by Swiss building supplier Arbonia, announced in September and completed in December 2016. Reflecting upon the strategic focus of Arbonia on Looser Holding's doors business, Arbonia remained fully committed to the value-maximizing sale of the coatings division.

### Lincoln Approach

To maximize the "sum of the parts" value, the opportunity was presented to potential buyers in a modular manner where interested parties could bid for the whole or certain parts only. The flexible sale strategy and early solicitation of key strategic bidders generated strong interest from both strategic as well as financial investors with a significant number of offers submitted. To ensure the highest possible competitive tension throughout the process and substantiate offers, a broad group of bidders were invited to management presentations and red-flag due diligence.

The process management and execution was highly "hands-on" to manage the multiple complex structuring issues and operational challenges, including inter alia asset deals for the packaging businesses, real estate carve-outs and the preparation of post-closing manufacturing and service agreements.

### Results

The Coatings business division was sold in four separate, highly interdependent transactions to both strategic and financial buyers from Germany, Italy, Finland and Switzerland, at a highly attractive valuation. The transactions closed in February, March, May and June 2017, respectively.

“The Chairman of Looser's Board of Directors went out on a limb when he publicly stated that he expected about CHF 100 million in proceeds for the coatings division. Now the transaction will generate even CHF 116 million for the shareholders. As a result, Arbonia's shares rose by 3%.”

-Finanz und Wirtschaft, Praktikus, 28 June 2017

**ARBONIA** 

has sold the Plastic Tube & Laminates business of



to



**ARBONIA** 

has sold the Metal Sheets and Aluminum Tubes & Monoblocs business of



to



**ARBONIA** 

has sold



to



**ARBONIA** 

has sold



to

**HELVETICA** CAPITAL



Lincoln served as the exclusive financial advisor for each of the four transactions.



## M&A Transaction Recap (Selected Announced Transactions)

Date	Target Company	Target Description	Acquiring Company
Sep-17	Sintesis Quimica	Manufactures special chemicals and biological products	Campos 25 de Mayo
Sep-17	Umicore France	Manufactures Titanium-Zinc products	Fedrus International
Sep-17	BASF	BASF, Paper Coatings Plant in Austria	Synthomer Austria
Sep-17	Vantage Specialty Chemicals	Manufactures fatty acids and specialty chemical blends	H.I.G. Capital; Jordan Company
Sep-17	Solvay	Solvay, Polyamide Business in Belgium	BASF
Sep-17	Weld-Aid Products	Manufactures maintenance chemicals	CRC Industries
Sep-17	Schweighofer Fiber	Manufactures viscose pulp and bio energy for textile fibers	TowerBrook Capital Partners
Sep-17	FXI	Manufactures foam and foam products	One Rock Capital Partners
Sep-17	China National Materials Company	Manufactures building materials and chemicals	China National Building Material
Sep-17	Royal Adhesives & Sealants	Manufactures adhesives, sealants and polymer coatings	H.B. Fuller Company
Sep-17	Performance One Coatings	Manufactures coatings for car and motorcycle exhaust systems	Zircotec
Aug-17	PoloPlaz	Manufactures wood floor paints and coatings	Valentus Specialty Chemicals
Aug-17	Evonik Industries	Evonik Industries, Dental Silica and Huber Defoamer business	W. R. Grace & Co.
Aug-17	Amteco	Manufactures wood and metal coatings and finishes	Gemini Coatings
Aug-17	ICM Silicones Group	Manufactures a variety of specialty silicones and emulsions	CHT Group
Aug-17	Georgia-Pacific Chemicals	Georgia-Pacific Chemicals, Pine Chemicals Business in the U.S.	Ingevity Arkansas
Aug-17	Joules Angstrom UV Printing Inks	Manufactures ultraviolet inks	Sun Chemical Corporation
Aug-17	StanChem	Manufactures emulsion polymers, adhesives and other coatings	Artemis Capital Partners
Aug-17	Flavours and Essences	Manufactures flavors and natural colors	Frutarom Industries
Aug-17	Plascoat Systems	Manufactures thermoplastic coating powders	Axalta Coating Systems
Aug-17	Calumet Superior	Manufactures specialty lubricants and oil products	Husky Energy
Aug-17	Woodbridge Technical Products	Manufactures polyurethane foam products	Woodbridge Foam Corporation
Aug-17	Cyalume Technologies Holdings	Manufactures chemiluminescent products	Arsenal Capital Partners
Aug-17	Activus Pharma	Manufactures pharmaceuticals, agrichemicals and cosmetics	Formosa Pharmaceuticals
Aug-17	Biolchim	Manufactures special fertilizers and biostimulants	Chequers Capital
Aug-17	Adhesives Plus	Manufactures specialty adhesives	AJ Adhesives
Aug-17	Tronox Alkali Corporation	Manufactures natural soda ash	Genesis Energy
Jul-17	ATB Indústria e Comércio de Adesivos	Manufactures adhesives, sealants, silicones and other chemicals	Compagnie de Saint-Gobain
Jul-17	Chemcolour Industries	Manufactures specialty chemicals and food ingredients	Azelis Holding
Jul-17	STRUCTIL	Manufactures adhesives, resins, prepress and pultruded profiles	Hexcel Corporation
Jul-17	Key Resin Company	Manufactures resinous coatings for concrete and steel	RPM International
Jul-17	BHS Specialty Chemical Products	Manufactures chemicals for the food and beverage industry	DuBois Chemicals
Jul-17	PolyLinks	Manufactures injection molded plastic components and devices	Enplas America
Jul-17	Esmalglass	Manufactures frits, glazes, pigments, inks and ceramic additives	Lone Star Funds
Jul-17	Dynaloy	Manufactures formulated cleaning solutions	Versum Materials
Jul-17	Giovanni Bozzetto	Manufactures textile, building and performance chemicals	Chequers Capital
Jul-17	ATRP Solutions	Manufactures multi-functional polymer materials	Pilot Chemical Company
Jul-17	Mesa Industries	Manufactures colorants and additive packages	PolyOne Corporation
Jul-17	DESOTEC	Manufactures specialty purification chemicals	EQT Partners
Jul-17	Iberchem	Manufactures fragrances and flavors	Eurazeo
Jul-17	DISATECH SAS And Flexcrete Technologies	Manufactures technical mortars and coatings	Akzo Nobel

## Market Intelligence

**07/19/2017: Polycine**, a manufacturer of polypropylene-based materials for IV fluid bags is seeking U.S. acquisitions to achieve product and geographic diversification. The company has approximately \$29mm of revenue

**07/31/2017: Masco**, a manufacturer of home improvement and construction products has reported a strong acquisition pipeline. The company expects to complement its existing business with smaller, strategic acquisitions, particularly in the Plumbing Products and Decorative Architectural Products segment.

**07/31/2017: Mexichem**, a manufacturer of petrochemicals is seeking to acquire additional chemicals companies. One of its main priorities is to assess the technological development of potential targets to further expand its digital capacities.

**08/02/2017: US Silica Holdings**, a manufacturer of industrial minerals is interested in bolt-on acquisitions and has developed a pipeline in its industrial & specialty products and oil & gas businesses.

**09/22/2017: Akzo Nobel**, Specialty Chemicals Business Unit is no longer seeking an IPO amid management transitions and a downturn in financial performance. Advisors have been retained to explore a private equity-focused sale process.

**09/25/2017: Prince Minerals**, a Palladium Equity Partners-owned processor and distributor of specialty chemicals and industrial additives has retained Goldman Sachs to explore a sale. Prince generates approximately \$90mm of EBITDA and is expected to achieve up to 10.0x EV / EBITDA.

Source: Mergermarket, CapitalIQ, company filings, investor presentations and earnings transcripts

## Global Industry Groups

Aerospace & Defense  
Automotive & Truck  
Building & Infrastructure  
Business Services  
Chemicals  
Consumer  
Distribution  
Electronics  
Energy & Power  
Financial Institutions  
Food & Beverage  
Healthcare  
Industrials  
Packaging  
Technology, Media & Telecom

## Global Locations

Amsterdam  
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Dallas  
Frankfurt  
London  
Los Angeles  
Madrid  
Milan  
Moscow  
Mumbai  
Munich  
New York  
Paris  
San Francisco  
São Paulo  
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Zurich

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# About Lincoln International

Lincoln International specializes in merger & acquisition advisory services, debt advisory services, private capital raising and restructuring advice on mid-market transactions. Lincoln International also provides fairness opinions, valuations and joint venture and partnering advisory services on a wide range of transaction sizes. With nineteen offices in the Americas, Asia and Europe, Lincoln International has strong local knowledge and contacts in key global economies. The firm provides clients with senior-level attention, in-depth industry expertise and integrated resources. By being focused and independent, Lincoln International serves its clients without conflicts of interest. More information about Lincoln can be obtained at [www.lincolnternational.com](http://www.lincolnternational.com).

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